

# 2024 Global Methane Forum

## Mobilizing Methane Action

18-21 March 2024, Geneva, Switzerland

# India Waste Clinic

## Elements of a Waste Clinic and Highlights from Uttar Pradesh

**Tom Frankiewicz, Principal  
RMI**



**RMI is an independent, non-partisan, non-profit organization that transforms the global energy system to secure a clean, prosperous, zero-carbon future for all.**

# What is a Waste Clinic?

- **Diagnose** waste management challenges in select Indian cities that result in methane emissions, and identify appropriate “treatments” or solutions (e.g., technical support, enhanced institutional capability and financial readiness);
  - **Provide** training on available tools and resources to improve waste management and reduce methane emissions;
  - **Assist** selected cities in building waste management capacity; and
  - **Document** these activities for replication and wide-scale impact.
- 
- Concept developed for CCAC by Environment Climate Change Canada (ECCC) in cooperation with U.S. EPA and C40
  - This project delivered in partnership with TERI with gracious support from ECCC

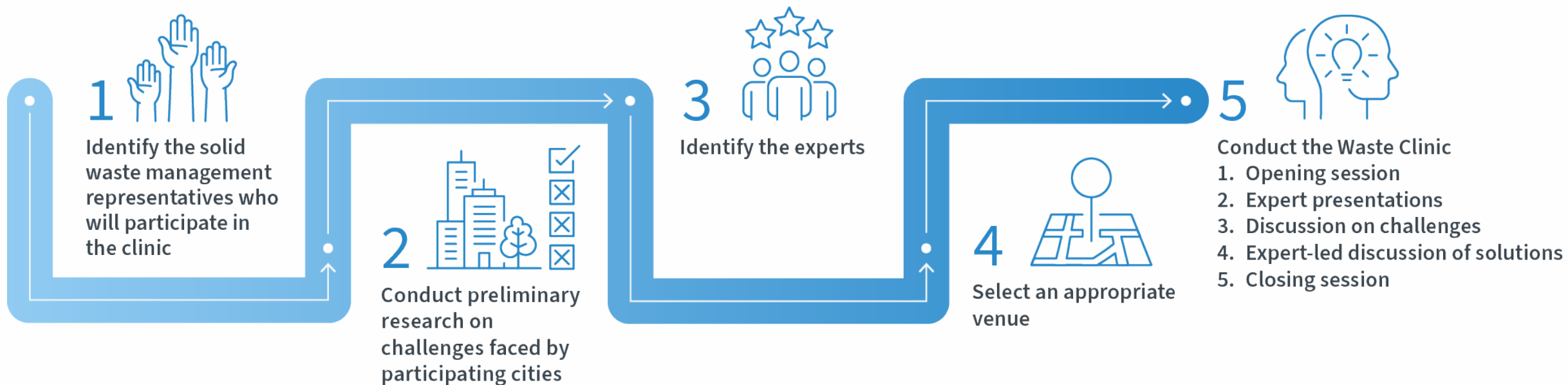


Environment and  
Climate Change Canada

Environnement et  
Changement climatique Canada

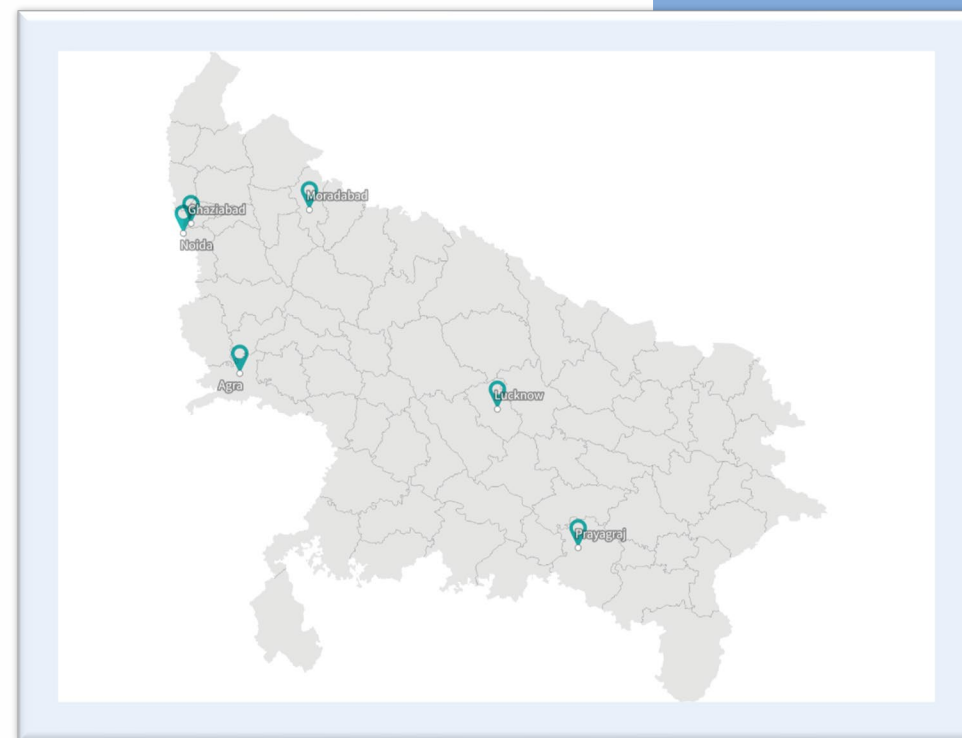


# Organizing a Waste Clinic



# Focus on Uttar Pradesh

- UP is the most populous state in India.
- The top 10 largest cities in UP each have nearly 1 million residents or more,
- Lucknow, the capital of Uttar Pradesh (UP) state, was selected as the host city for the clinic.
- High waste generation driven by large population
- Working relationship of TERI with Urban Local Bodies



Municipalities rotating  
across the 4 topics areas  
with each table led by  
waste experts



# Common Issues Raised

1. **Data collection** on waste generation and characterization for planning infrastructure.
2. **Source segregation and collection** of organic waste for effective treatment.
3. **Organic waste treatment** for reducing methane emissions while helping to meet the demand for energy through biogas projects.
4. **Disposal** to improve operations and mitigate emissions at dumpsites and landfills.

## Challenges

- Lack of granular data at different stages of waste management
- Inadequate infrastructure/labor and inefficient collection schedules
- Poor O&M of organic waste treatment facilities

## Solutions

- Infrastructure such as weigh bridges, waste collection vehicles and digital data tools needed to increase data
- Collection frequency of wet vs. dry waste should be optimized
- Critical to identify bulk waste generators in a city and conduct awareness campaigns and capacity building

# Workplans

## Sample

- Data solution from Agra Municipal Corporation workplan
- Maps actions to role of AMC and deliverables

Actions	Role of AMC	Deliverable
Baseline assessment for the characterization of waste along with various waste management activities like waste collection and transportation, waste burning, waste handling equipment, dumpsites, organic waste treatment and recycling	Provide information on the existing waste management situation in the city, along with access to documents/reports of past studies to assess the management of waste from various sectors across the value chain.	Report on baseline assessment for AMC consisting of existing waste management situation in the city along with recommendations
Develop key performance indicators (KPIs) based on data collection tools for waste management activities to create a standardized template	Provide necessary access to departments and offices of the municipality to gain insight into the required KPIs	A data repository and a standardized template, for effective data collection



# Thank You!

[tfrankiewicz@rmi.org](mailto:tfrankiewicz@rmi.org)

wastemap.earth